



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
30.10.2024 Bulletin 2024/44

(43) Date of publication A2:
19.06.2024 Bulletin 2024/25

(21) Application number: **24171849.3**

(22) Date of filing: **26.11.2020**

(51) International Patent Classification (IPC):
C11D 17/04 ^(2006.01) **C11D 11/00** ^(2006.01)
C11D 3/386 ^(2006.01) **C11D 3/00** ^(2006.01)
C11D 1/02 ^(2006.01) **C11D 1/66** ^(2006.01)

(52) Cooperative Patent Classification (CPC):
C11D 3/38618; C11D 1/02; C11D 1/66; C11D 1/83;
C11D 3/0015; C11D 3/0047; C11D 3/386;
C11D 3/38627; C11D 3/38663; C11D 17/041;
C11D 17/045; C11D 1/146; C11D 1/22; C11D 1/29;
C11D 1/662; (Cont.)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR

(30) Priority: **28.11.2019 IT 201900022392**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
20839381.9 / 4 065 680

(71) Applicant: **SALROS S.R.L.**
20145 Milano (IT)

(72) Inventors:
• **LUZZINI, Paola**
20145 Milan (IT)
• **ROVELLI, Ivana**
20145 Milan (IT)
• **ZACCHI, Elisa**
20145 Milan (IT)

(74) Representative: **Faggioni, Carlo Maria et al**
Fumero S.r.l.
Pettenkoferstrasse 20/22
80336 München (DE)

(54) **LIQUID WASHING COMPOSITION WITH SEPARATE COMPONENTS FOR LAUNDRY AND KIT THEREOF AND WASHING METHOD FOR AUTOMATIC WASHING MACHINES**

(57) A fluid washing composition is disclosed, which is including four separate components housed in respective independent tanks of a laundry washing machine equipped with a programme for the selection, dosing and differentiated delivery of said separated components according to the varying characteristics of the individual laundry batch. The fluid washing composition is arranged so that said separate components have the following formulation:

Component 1 - detergent formulation with a pH ranging 10 between 4.0 and 12.0, with high detergent effect in washing programmes at temperatures in the range 40°-60°C, having a specific action on cotton fibres and, in particular, on white-coloured items;

Component 2 - detergent formulation with a pH ranging between 8.0 and 12.0, with high detergent effect in washing programmes at temperatures in the range 15°-40°C, having a specific action on synthetic, coloured and animal-origin fibres;

Component 3 - enzyme-based stain-removing formulation based at least on protease and lipase and possibly amylase with a pH ranging between 4.0 and 6.0 and preferably between 5.0 and 5.5, stabilised with polyols and calcium chloride;

Component 4 - after-wash conditioning formulation, with

a pH ranging between 2.0 and 4.0, whereby distributing said components across four different and independent volumes, separating the components enzymes and surfactants.

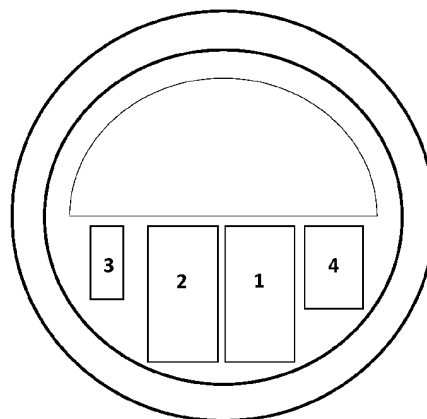


Fig. 1

(52) Cooperative Patent Classification (CPC): (Cont.)
C11D 1/72; C11D 2111/44; D06F 33/37;
D06F 39/022



EUROPEAN SEARCH REPORT

Application Number

EP 24 17 1849

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	EP 2 521 811 A1 (HENKEL AG & CO KGAA [DE]) 14 November 2012 (2012-11-14) * claims; figures; examples *	1-15	INV. C11D17/04 C11D11/00 C11D3/386
A,D	WO 2013/054089 A1 (RECKITT & COLMAN OVERSEAS [GB]) 18 April 2013 (2013-04-18) * claims; examples *	1-15	C11D3/00 C11D1/02 C11D1/66
A	WO 96/15710 A1 (UNILEVER NV [NL]; UNILEVER PLC [GB]) 30 May 1996 (1996-05-30) * claims; examples *	1-15	
A,D	DE 10 2010 030021 A1 (HENKEL AG & CO KGAA [DE]) 15 December 2011 (2011-12-15) * paragraphs [0108], [0171] * * paragraph [0029]; examples 41-44 * * the whole document *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			C11D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		2 August 2024	Yildirim, Zeynep
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 17 1849

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-08-2024

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2521811 A1	14-11-2012	DE 102010027992 A1	20-10-2011
		EP 2521811 A1	14-11-2012
		ES 2536773 T3	28-05-2015
		KR 20130062272 A	12-06-2013
		PL 2521811 T3	31-08-2015
		US 2013036772 A1	14-02-2013
		WO 2011131261 A1	27-10-2011

WO 2013054089 A1	18-04-2013	CA 2851437 A1	18-04-2013
		EP 2766465 A1	20-08-2014
		US 2014250608 A1	11-09-2014
		WO 2013054089 A1	18-04-2013

WO 9615710 A1	30-05-1996	AU 713330 B2	02-12-1999
		BR 9509918 A	30-09-1997
		CA 2202162 A1	30-05-1996
		DE 69514824 T2	15-06-2000
		EP 0793439 A1	10-09-1997
		ES 2142504 T3	16-04-2000
		JP H10509990 A	29-09-1998
		WO 9615710 A1	30-05-1996
		ZA 959924 B	22-05-1997

DE 102010030021 A1	15-12-2011	DE 102010030021 A1	15-12-2011
		WO 2011157630 A1	22-12-2011
